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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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William A. Pugh

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EXAMINER

NGUYEN BA, HOANG VU A

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,178

Applicant(s)

PUGH ET AL.

Examiner

Hoang-Vu A. Nguyen-Ba

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6, 9-15, 20-33 is/are allowed.
- 6) ☒ Claim(s) 7, 8 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to amendment filed July 17, 2006.
2. Claims 1-33 remain pending.

Response to Arguments

3. Applicant's arguments filed July 17, 2006 have been fully considered but they are not persuasive. Following is an examiner's response to Applicant's arguments.

Claim Rejections under 35 U.S.C. § 112, second paragraph

Applicant's arguments:

In respect to step 1, Applicant agrees that a loading operation must be performed by some system at some time. It is not essential, however, that the application service provision apparatus perform the loading. Rather, another system connected to the application service provision apparatus could, in one embodiment, load the latest version of the runtime library into the memory of the application service provision apparatus. Also, it is not essential that such loading occurs at initialization of the application service provision apparatus. It is only essential that the loading take place prior to the inquiring recited by claim 7. Claim 8 depends from claim 7, and claim 16 recites claim 7 in apparatus form. Accordingly, step 1 is not required for any of claims 7-8 and 16.

Examiner's response:

The examiner respectfully notes that Applicant asserts that "[i]t is not essential, however, that the application service provision apparatus perform the loading" and that "[r]ather, another system connected to the application service provision apparatus could, in one embodiment, load the latest version of the runtime library into the memory of the application service provision apparatus." According to Applicant's assertion, the latest version of the runtime library has to be loaded into the memory of the application service provision apparatus. It is thus interpreted that if the latest version of the runtime library is not present in the memory of the application service

provision apparatus then it is not possible to “inquir[e] with the latest version of the runtime library to identify the version of the runtime library required by an application...” Therefore, the step of loading the latest version of the runtime library, whether by another system connected to the application service provision apparatus or by the application service provision apparatus itself, is necessarily required, essential and critical in order for the application service provision apparatus to perform the inquiring step.

Applicant's arguments:

In respect to steps 2 and 3, Applicant submits that another device working in tandem with the application service provider apparatus may perform the operation recited by steps 2 and 3. Such operations may be required to service the application, but there is no reason that these steps must be performed by the application service provider apparatus. Accordingly, Applicant posits that steps 1-3 are not omitted steps required by § 112, second paragraph. Thus, Applicant requests that the examiner renew his allowance of claims 7-8 and 16.

Examiner's response:

According to Applicant, these two steps may be required to service the application. Therefore, these two steps are necessary, essential and critical for the application service provision apparatus to function, whether being performed by another device working in tandem with the application service provision apparatus by the application service provision apparatus itself.

The examiner respectfully notes that:

how the required version can be determined to be known or not known without data associating an application with a required version of the runtime library; and without receiving by a dispatcher a request for service for the application and in response, determining by the dispatcher whether the required version of the runtime library used by the application is known to the dispatcher; and

how the latest version of the runtime library can respond with the required version without the latest version of the runtime library being present (i.e., being loaded in the RAM).

Accordingly, the rejection of claims 7, 8 and 16 under 35 U.S.C. § 112, second paragraph is considered proper and maintained.

Claim Rejections under 35 U.S.C. § 101

Applicant's arguments:

On page 7, second complete paragraph, the Examiner asserts that claim 17 does not have a useful, concrete, tangible result and, thus, is unpatentable under § 101. Applicant disagrees. The useful, concrete, and tangible result of claim 17 is the release of an allocation of a portion of a shared resource that a resource monitor has determined should be released. The release of a resource has the useful result of requiring less memory usage. Applicant reminds the Examiner of the court's holding in In re Alappat, 33 F.3d 1526 (Fed. Cir. 1996) that a practical application of an algorithm or calculation is patentable if it produces a useful, concrete, tangible result. Here, a practical application of an algorithm releasing an allocation of a portion of a shared resource is freeing memory space. This is useful, concrete, tangible result that may result in, for example, cost savings to a manufacturer determining how much memory is necessary to install on a computing device. Accordingly, Applicant submits that claim 17 is indeed patentable under § 101. Claims 18 and 19 further refine the patentable subject matter of claim 17 and are thus patentable themselves for at least the reasons that claim 17 is patentable. Thus, Applicant requests that the Examiner withdraw the § 101 rejection of claims 17-19 and allow the claims.

Examiner's response:

The examiner respectfully disagrees with Applicant's assertion that "the release of an allocation of a portion of a shared resource that a resource monitor has determined should be released" is a useful, concrete and tangible result of claim 17 because of the following reason(s):

the freeing of memory space to improve the cost savings to a manufacturer in determining how much memory is necessary to install on a computing device, which constitutes a “real-world” result that would render claim 17 statutory, is absent from the claim;

until an act that specifically performs the freeing of the memory is claimed in the claim, claim 17 is thus not statutory;

the “releasing” recited in claim 17 is interpreted to mean “making available” for use the first and second allocations of the portions of the shared resources; hence, the releasing is not limited to requiring an operational relationship with any outside entity and as such, there is no substantial real world effect that would constitute the required tangible result. Alternatively stated, releasing is merely interpreted to be equivalent to “making useable,” a status of the allocated resources that is half-way between “not available” and “being used.” The final “real-world” result of the steps claimed in claim 17 is not tangible until the allocated portions in the shared resources are being used, or acted upon.

Applicant’s arguments with respect to the rejection of claims 17-19 under 35 U.S.C. § 101 as being directed to non-statutory subject matter are considered not persuasive. Therefore, the rejection of these claims under 35 U.S.C. § 101 is maintained.

Claim Rejections – 35 USC §112

4. The following is a quotation of the second paragraph of the 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 7 is rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: *loading the latest version of the runtime library at initialization of the application service provision apparatus, the latest version of the runtime library includes data associating an application with a required version of the runtime library; during operation, receiving by a dispatcher a request for service for the application; in response, determining by the dispatcher whether the required version of the runtime library used by the application is known to the dispatcher.* These omitted steps are considered critical and essential because without the pre-performance of these steps, the claimed steps of “inquiring with the latest version of the runtime library to identify the version of the runtime library required by an application whenever the required version is not known and in response, the latest version of the runtime library responding with the required version” are not operative. Alternatively stated, it is unclear as to:

how the inquiring with the latest version of the runtime library step could be performed without the latest version of the runtime library being present (i.e., being loaded in the RAM);

how the required version can be determined to be known or not known without data associating an application with a required version of the runtime library; and without receiving by a dispatcher a request for service for the application and in response, determining by the dispatcher whether the required version of the runtime library used by the application is known to the dispatcher; and

how the latest version of the runtime library can respond with the required version without the latest version of the runtime library being present (i.e., being loaded in the RAM).

6. Claim 8, dependent from claim 7, while reciting the further step of loading the latest version of the runtime library at initialization of the application service provider

apparatus is considered to be incomplete for omitting essential steps of *receiving by a dispatcher a request for service for the application; in response, determining by the dispatcher whether the required version of the runtime library used by the application is known to the dispatcher* and the essential feature of *the latest version of the runtime library includes data associating an application with a required version of the runtime library*. Without these critical steps and features, the method of claim 8 is not operative for the reasons discussed above.

7. Claim 16, which recites an apparatus comprising storage medium having stored therein programming instructions designed to implement the method steps of claim 7, is rejected under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See the rationale for the rejection of this claim in the aforementioned discussion.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 7-8 and 16 are rejected under 35 U.S.C. § 101 because the claimed invention is inoperative and therefore lacks utility.

10. Claims 17-19 are rejected under 35 U.S.C § 101 because the claimed invention is directed to non-statutory subject matter.

The Supreme Court has ruled that to be statutory, a claimed process must either: (A) result in a physical transformation for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application which produces a useful, tangible, and concrete result.. See Diehr, 450 U.S. at 183-84, 209 USPQ at 6 (quoting Cochran v. Deener, 94

U.S. 780, 787-88 (1876)) (“A [statutory] process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject matter to be transformed and reduced to a different state or thing.... The process requires that certain things should be done with certain substances, and in certain order; but the tools to be used in doing this may be of secondary consequence.”). See also Alappat, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting Diehr, 450 U.S. at 192, [209 USPQ at 10]). See also id. at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring)(“unpatentability of the principle does not defeat patentability of its practical applications”)(citing O’Reilly, 56 U.S. (15 How.) at 114-19).

i. “Practical Application of an Abstract Idea”

While the Supreme Court has ruled that “transformation” is relevant to a section 101 inquiry, the Court has expressly refused to hold that it is the only test for determining patent eligibility. The Federal Circuit has provided further guidance in distinguishing between the judicially-created exceptions to patentable subject matter and eligible subject matter. The focus of the inquiry is whether the claim, considered as a whole, constitutes “a practical application of an abstract idea.” State Street, 149 F.3d at 1373, 47 USPQ2d at 1600. Thus, the question of whether a claim encompasses statutory subject matter should not focus on which category of subject matter a claim is directed to (e.g., process or machine), “but rather on the essential characteristics of the subject matter, in particular its practical utility.” State Street, 149 F.3d at 1375, 47 USPQ2d at 1602; see also AT&T, 172 F.3d at 1360, 50 USPQ2d at 1453 (focus on section 101 inquiry is “whether the mathematical algorithm was applied in a practical manner”). Accordingly, an “abstract idea” when practically applied to a useful end is eligible for a patent. State Street, 149 F.3d at 1374, 47 USPQ2d at 1601 (“a process, machine, manufacture, or composition of matter

employing a law of nature, natural phenomenon, or abstract idea is patentable subject matter even though a law of nature, natural phenomenon, or abstract idea would not, by itself, be entitled to such protection.”)(emphasis added); see also Alappat, 33 F.3d at 1543, 31, USPQ2d at 1556-57 (holding that “certain types of mathematical subject matter, standing alone, represent nothing more than abstract ideas until reduced to some type of practical application, and thus that subject matter is not, in and of itself, entitled to patent protection.”).

ii. “Useful, Concrete and Tangible Result”

In State Street, the Federal Circuit examined some of its prior section 101 cases, observing that the claimed inventions in those cases were each for a “practical application of an abstract idea” because the elements of the invention operated to produce a “useful, concrete and tangible result.” State Street, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. For example, the court in State Street noted that the claimed invention in Alappat “constituted a practical application of an abstract idea (a mathematical algorithm, formula, or calculation), because it produced ‘a useful, concrete and tangible thing – the condition of a patient’s heart.’” Id.

In determining whether the claim is for a “practical application,” the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result is “useful, tangible and concrete.” The Federal Circuit further ruled that it is of little relevance whether a claim is directed to a machine or process for the purpose of a § 101 analysis. AT&T, 172 F.3d at 1358, 50 USPQ2d at 1451.

In this instance, it is unclear as to whether the final result of the steps taken recited in claim 17 is useful, concrete and tangible. In claim 1, it is understood that the claimed invention relates to a method for updating a required version of a runtime library, which has a useful, concrete and tangible result. Claim 17, instead is

completely silent as to the intended use (i.e., useful), as to the predictability (i.e., concrete), and as to the practicality (i.e., tangible) of the final result.

As a result, Claim 17 and the dependent claims are rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter because these claims are not for a practical application that produces a useful, concrete and tangible result.

Claims 18 and 19, which depend from Claim 17, are also rejected under 35 U.S.C. § 101 as being directed to nonstatutory subject matter for the same reasons.

Allowable Subject Matter

11. Claim 17 is rejected as being directed to nonstatutory subject matter, but would be allowable if rewritten to overcome the 101 rejection.

12. Claims 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if Claim 17 is rewritten to overcome the the 101 rejection.

13. Claims 1-6, 9-15 and 20-33 are allowed.

14. The following is an examiner's statement of the reason for allowance:

Alderson, taken individually or in combination, does neither teach nor suggest the specific limitations that are recited in independent Claims 20, 23, 27 and 30.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The Examiner can normally be reached on the following days of a bi-week: Monday-Thursday (first week) and Tuesday-Friday (second week) from 7:45 to 18:15.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



September 12, 2006

ANTONY NGUYEN-BA
PRIMARY EXAMINER